



U.S. DEPARTMENT OF  
**ENERGY**



# The Idaho Cleanup Project

Site-Specific Advisory Board

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Deputy Manager

September 23, 2009



***EM*** *Environmental Management*

safety



performance



cleanup



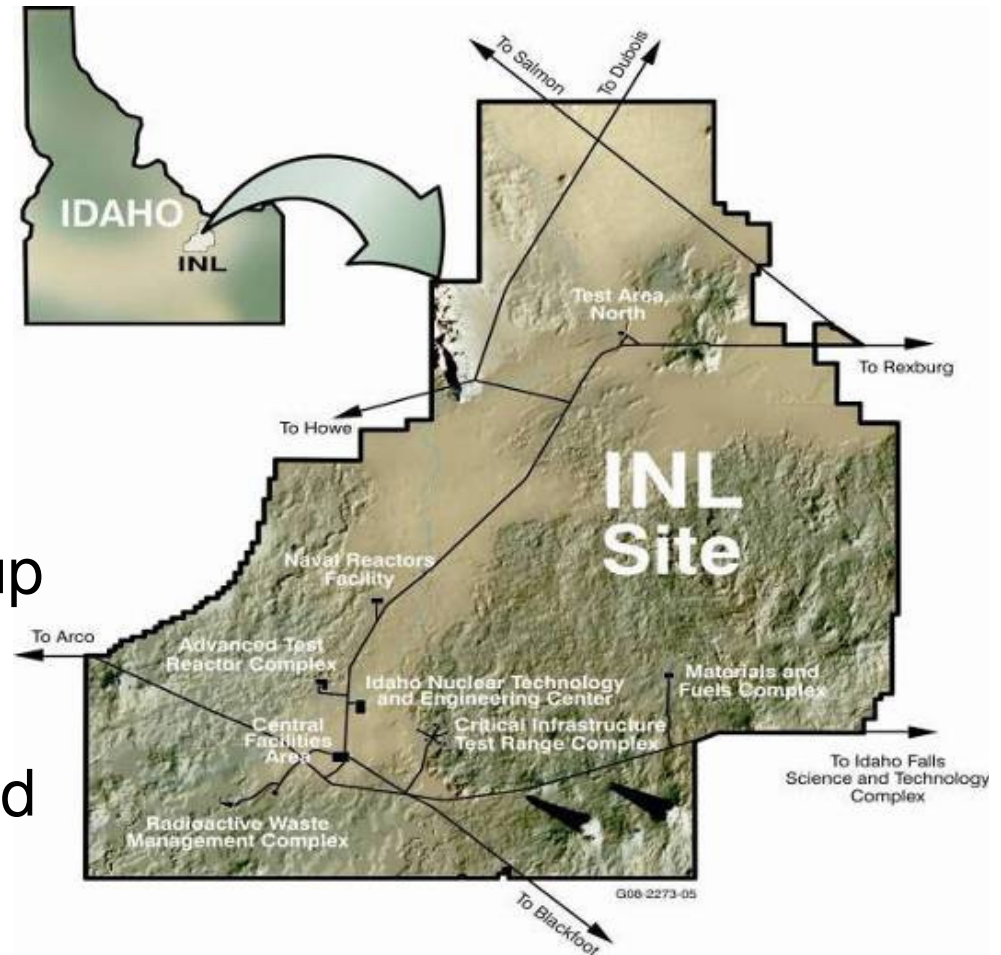
closure

# Welcome to Idaho!

- 890 square miles
- Principal Secretarial Office: Nuclear Energy (NE)
- Office of Environmental Management (EM)

## Mission:

- Complete the safe cleanup of environmental legacy waste
- Reduce EM's footprint and mortgage costs



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## ***EM Idaho Cleanup Project (ICP) Focus***

- Disposal of legacy radioactive waste
- Demolition of buildings no longer with a mission
- Management of spent nuclear fuel, high-level waste calcine, and sodium-bearing waste (SBW)
- Completion of soil and groundwater remediation



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# *The Idaho Settlement Agreement*

- 1995 agreement between Idaho and DOE
- Focused on protection of the Snake River Plain Aquifer
- Agreement milestones:
  - 2009: Issue ROD for Calcine Treatment
  - 2012: Complete processing of Sodium-bearing liquid high-level waste
  - 2018: Removal of transuranic (TRU) waste
  - 2023: Dry storage of spent nuclear fuel
  - 2035: Removal of spent nuclear fuel (SNF) from Idaho
  - 2035: Place high-level waste calcine in a road-ready condition
- Reinforced through RCRA Site Treatment Plan milestones:
  - Treat 4,500 cubic meters of TRU waste per fiscal year
  - Calcine preparations (Permit application by 2012)



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# Cleanup Contracts

- CH2M-WG, Idaho (CWI) through 2012
  - Decontamination and Decommissioning (D&D)
  - Processing Sodium-bearing waste (SBW)
  - Spent Nuclear Fuel Transfers
  - Waste disposition
  - Buried Waste Exhumation
- Bechtel BWXT, Idaho (BBWI) through January 2010
  - Advanced Mixed Waste Treatment Project retrieves, processes, and packages transuranic waste for shipment to the Waste Isolation Pilot Plant (WIPP)



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# Progress: D&D



Material Test Reactor demolition underway

- Demolished 134 nuclear and non-nuclear facilities since May 2005
- Reduced the Idaho EM footprint by 671,579 sq. ft. out of a planned 1,413,806 sq. ft by 2011
- Currently two years ahead of schedule with significant cost savings



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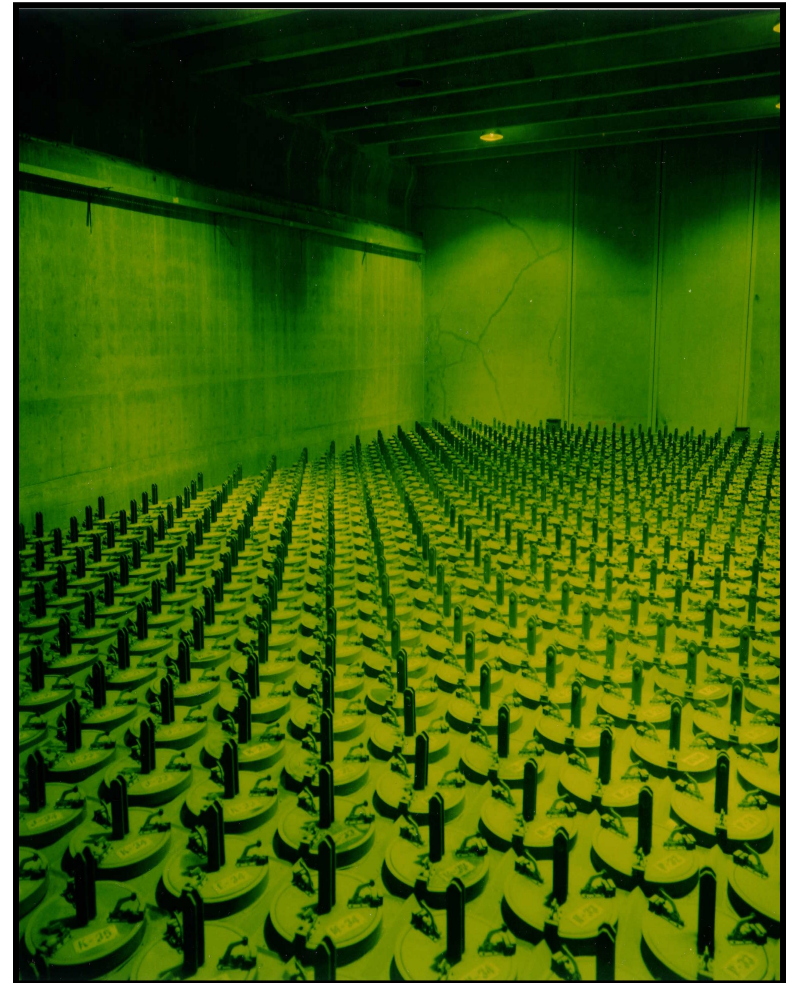
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# **Progress: Nuclear Materials and Spent Fuel**

- Dispositioned all legacy special nuclear material assigned to EM (641 items, 825.2 kg. U.)
- Manage 220 different types of spent nuclear fuel to be in dry storage by June 2010



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# Progress: Liquid Radioactive Waste

- **Closed 11 Underground High Level Waste Tanks**
  - Four 30,000 gallon Tanks
  - Seven 300,000 gallon Tanks
  - Includes vaults and piping



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# Progress: Liquid Radioactive Waste

- Constructing the Integrated Waste Treatment Unit (IWTU) to treat sodium bearing waste
- Constr. completion: 8/2010
- Facility Startup: 8/2011
- Treat 900,000 gallons of SBW by the end of 2012
- Design allows option to treat Calcine & other waste streams



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# ***Progress: CH-TRU Waste***

- Shipping record amounts of contact handled transuranic waste (CH-TRU) to WIPP
- Accepting off-site transuranic waste for processing and shipment to WIPP



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# Progress: RH-TRU Waste



- Completed 90% of the Radioactive Waste Management Complex (RWMC) remote-handled transuranic (RH-TRU) waste shipments to WIPP
- Accelerating shipments of Sludge Pan Containers (SPCs) from the Naval Reactors Facility (NRF) and HFEF-5 Cans and Liners from the Materials and Fuels (MFC) Complex to WIPP
  - 24 SPCs shipped from NRF to INTEC
  - 48 HFEF-5 cans shipped from MFC to INTEC



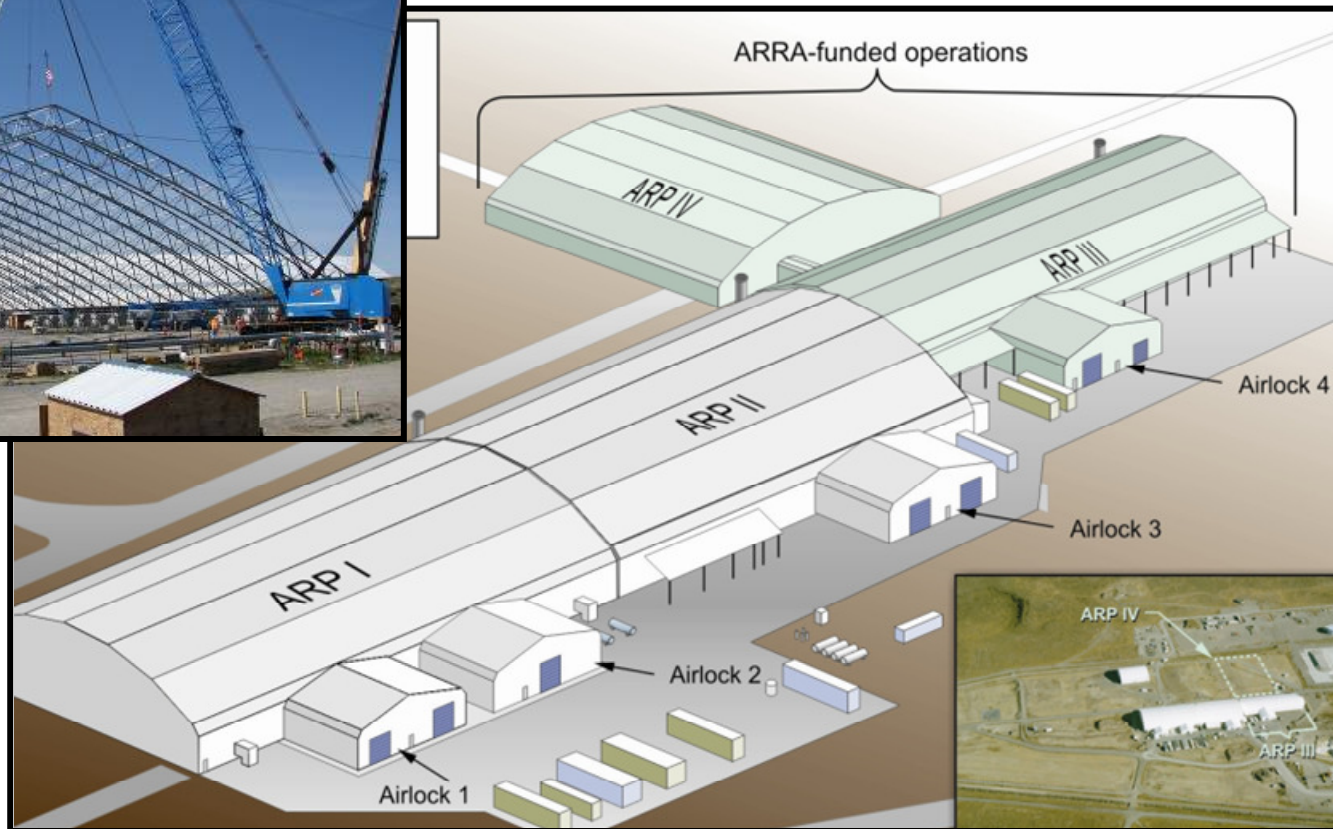
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# Progress: Soil/Groundwater Remediation

- Implementing the Record of Decision for Waste Area Group 7
- Exhuming targeted waste from the Subsurface Disposal Area



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# ***Looking Ahead***

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- Complete IWTU and treat 900,000 gallons of SBW by 2012
- Dispose of 65,000 cubic meters of CH-TRU waste by 2015
- Complete shipment of RH-TRU waste to WIPP by September 2011
- Complete Subsurface Disposal Area remediation and cap
- Calcine “road-ready” by 2035
- SNF packaged and shipped off-site by 2035
- Complete D&D of 89 EM facilities (812,277 sq. ft.) by 2011
- Plan and execute D&D of remaining EM facilities and NE liabilities transferred to EM after 2011 (256 facilities, 2,435,782 sq. ft.)



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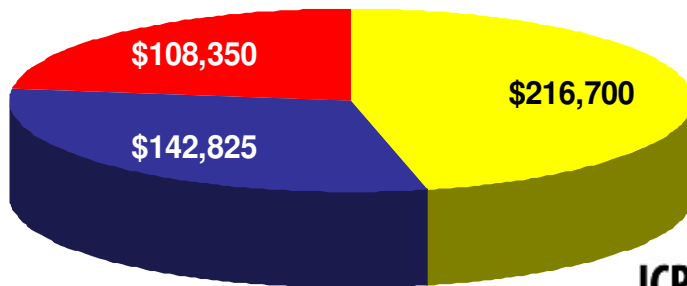
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# American Recovery and Reinvestment Act Funding

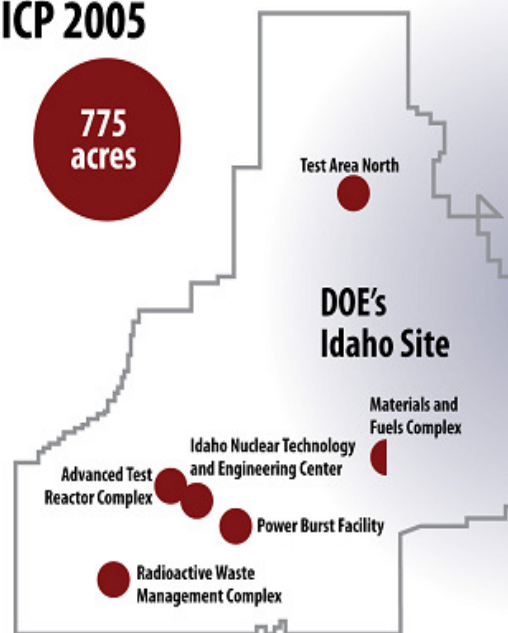
■ D&D ■ TRU Waste ■ Buried Waste



## 2005 through 2011 Cleanup Progress

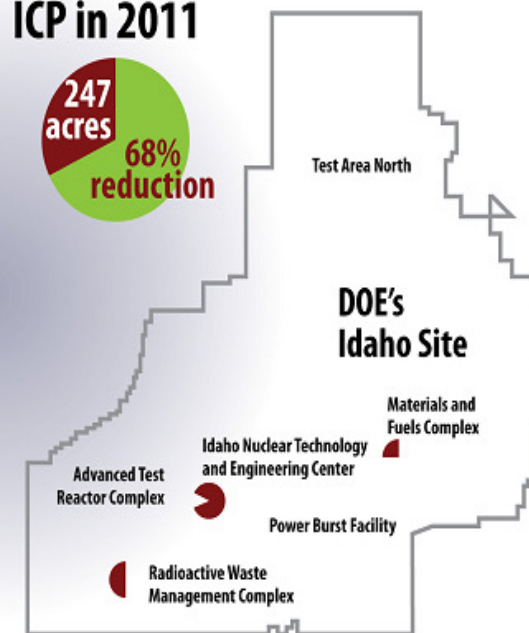
ICP 2005

775  
acres



ICP in 2011

247  
acres  
68%  
reduction



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# Challenges



- Achieving ARRA work acceleration and ensuring jobs
- Safely conducting work
- Managing unplanned events and risks during operations
- Achieving settlement agreement milestones
- Integrating new NE work scope and coordinating work at NE sites
  - RH-TRU and D&D at MFC and RTC
- Efficiently ship TRU to WIPP that benefits both sites



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***Thank you!***



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